

1. (Amended) A targeted therapeutic or diagnostic agent comprising (a) a therapeutic or diagnostic functional entity linked to (b) an isolated peptide mimetic which is based on an optimized high affinity polyamino acid and wherein the mimetic specifically binds a selected target.

3. (Amended) [A targeted therapeutic or diagnostic agent comprising (a) a therapeutic or diagnostic functional entity linked to (b)] A protein comprising an isolated naturally occurring or optimized protein surface loop that specifically binds a selected target, wherein the protein surface loop is not endogenous to the protein and replaces a surface loop on the protein. [functional entity.]

4. (Amended) The targeted agent of any of claims 1[, or 2 [or 3], wherein the functional entity is a medical or diagnostic device.
5. (Amended) The targeted agent of any of claims 1[, or 2 [or 3], wherein the entity is a cell, virus, gene delivery vehicle or a biological molecule.
6. (Amended) The targeted agent of any of claims 1[, or 2 [or 3], wherein the entity is a synthetic or naturally occurring macromolecule.
7. (Amended) The targeted agent of any of claims 1[, or 2 [or 3], wherein the entity is a synthetic or naturally occurring peptide or protein.
8. (Amended) The targeted agent of any of claims 1[, or 2 [or 3], wherein the entity is a synthetic or naturally occurring enzyme.

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9. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the entity is a thrombolytic agent or an anticoagulant.
10. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the entity is a plasminogen activator.
11. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the entity is tissue type plasminogen activator (tPA), or a variant of tissue type plasminogen activator.
12. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the entity is loop-grafted tissue type plasminogen activator (LG-tPA).
13. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the target is a biological entity.
14. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the target is an organ, tumor, tissue, cell, virus, or microorganism.
15. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the target is a synthetic or naturally occurring macromolecule.
16. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the target is a protein.
17. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the target is a cell surface protein.

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18. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the target is an integrin.
19. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the target is an integrin that binds to an Arg-Gly-Asp (RGD) tripeptide motif.
20. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the target is $\alpha_{\text{Iib}}\beta_3$ integrin.
21. (Amended) The targeted agent of any of claims 1[,] or 2 [or 3], wherein the target is $\alpha_v\beta_3$ integrin.
22. (Amended) The targeted agent of claim 1 or 2, wherein the optimized, high affinity polyamino acid is a complementarity determining region of an IgG-like molecule.
23. (Amended) The targeted agent of claim 1 or 2, wherein the optimized, high affinity polyamino acid is a complementarity determining region of an antibody molecule.
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25. (Amended) A recombinant targeting protein comprising (a) a surface loop from a first protein [having a surface loop] that specifically binds the target and (b) a functional domain of a second protein.
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Please add the following new claims:

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- 56. (New) A method of designing a targeted protein comprising grafting a loop of an optimized high affinity polyamino acid to a protein.--